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ABSTRACT

A practicum addressed the problem of speech students who did not generalize therapeutically acquired speech skills into their mainstreamed environments. This lack of generalization resulted in an increased caseload for therapists because of re-referrals of students who had previously been dismissed from speech therapy. The goals of the practicum were: (1) to increase teachers' knowledge of speech therapy techniques; (2) to increase parent knowledge of speech therapy techniques; and (3) to increase parent/teacher perceived improvement in their children/students. Parents and teachers in a public elementary school in a rural northeastern community were trained through instructional conferences, demonstrations, and supervised participation in the therapeutic process. The techniques which were demonstrated and employed included cuing, positive reinforcement, and progressive desensitization. The results of the practicum were positive. Analysis of the data revealed that parents and teachers increased their understanding of the speech therapy process and that most parents and teachers perceived improvement in the generalized speech of their children/students; no perception of regression was evident. The continued employment of the program will undoubtedly prove to be cost effective since it is anticipated that students will be dismissed from therapy more rapidly and will less likely be re-referred. (A questionnaire data table and a mean scores data table are included, and 48 references, and eight appendixes including pre-and posttests, questionaire, a practicum implementation checklist, and a conference request letter, are attached.) (RAE)

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Increasing Performance Levels of Eight to Thirteen Year Old Speech Therapy Students by Utilizing Parents and Teachers in the Generalization Stage of Therapy

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by

Barbara A. Ellicott

Cluster XXVI(A)

Practicum I Report Presented to the EdD. Program in Early and Middle Childhood in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

NOVA UNIVERSITY

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PRACTICUM APPROVAL SHEET

This practicum took place as described.

Verifier: John Milone

John Milone

Assistant Principal
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Frankford Township

May 4, 1988
Date

This practicum report was submitted by Barbara Ann Ellicott under the direction of the adviser listed below. It was submitted to the Ed.D. Program in Early and Middle Childhood and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University.

Approved:

6-9-88
Date of Final Approval of Report

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ABSTRACT

Increasing Performance Levels of Eight to Thirteen Year Old Speech Therapy Students by Utilizing Parents and Teachers in the Generalization Stage of Therapy. Ellicott, Barbara Ann. 1988: Practicum Report, Nova University Ed.D. Program in Early and Middle Childhood. Descriptors: Intermediate Grades / Elementary Grades / Speech Disorders / Articulation Disorders / Language Disorders / Stuttering Disorders / Speech Generalization / Psychological Disorders / Mainstreaming / Carry-over / Positive Reinforcement / Training Parents/Teachers in the Therapeutic Process.

This practicum addressed the problem of speech students not generalizing therapeutically-acquired speech skills into their mainstreamed environments. This lack of generalization resulted in an increased caseload due to re-referrals of students who had previously been dismissed from speech therapy. The literature review disclosed the fact that a lack of generalization has been a problem on state and national levels.

The writers goals were 1) to increase teachers' knowledge of speech therapy techniques 2) to increase parent knowledge of speech therapy techniques and 3) increase parent/teacher perceived improvement in their children/students. In addressing these goals, the writer trained parents and teachers through instructional conferences, demonstrations, and supervised participation in the therapeutic process. They were taught how they could play an important role in the speech generalization process. The techniques which were demonstrated and employed included cuing, positive reinforcement, and progressive desensitization.

The results of the practicum were positive. Analysis of the data revealed that 1) parents and teachers increased their understanding of the speech therapy process and that 2) most parents and teachers perceived improvement in the generalized speech of their children/students: no perception of 'backsliding' or regression was evident.

The administration has endorsed the increased involvement of parents and teachers in the therapeutic process and appreciates the importance of the speech-language pathologist serving in a consultant capacity. The continued employment of the program will undoubtedly prove to be cost effective since it is anticipated that students will be dismissed from therapy more rapidly and will less likely be re-referred.

CHAPTER I

INTRODUCTION

Description of Community

The school in which the practicum took place is located in a rural community in the northeastern portion of the United States. For uncounted generations this region remained a land of low mountains, with farmlands lying in the valleys in between. In this rapidly growing community one can now witness vast portions of farmland giving way to developers. Shopping centers are being constructed where cows grazed only one year ago. Entertainment centers are rapidly engulfing last year's sheep country. The school has made bids on surrounding farmland in the hope of purchasing it for further building expansion, which will be needed to accommodate the projected increase in school population. The current school population has increased as a result of a recent (June 1987) merger with a neighboring school in a small nearby community.

The socioeconomic make-up of the community is increasingly middle and upper middle class. However, there also persists a small belt of extreme poverty, these individuals being migrant farm workers and the chronically unemployed. This writer has witnessed the town's

transition from being essentially lower middle class to becoming essentially upper middle class, all within a short span of six years.

Writer's Work Setting and Role

The public school in which the practicum took place houses grades preschool through eight. The number of male and female pupils is about equal. The population is almost exclusively Caucasian with the exception of approximately two black students and one Asian student. The religious composition is almost exclusively Protestant with a few Catholics, and perhaps one non-practicing Jewish family. Conservatism prevails as the nearly exclusive political focus.

The school is a public school located with a state where an old tradition of local school board control has of late given way to a greater degree of supervision by the county superintendent and by the state board of education. Nonetheless, the local citizenry still retains a very large amount of control over the school system through its elected school board. To a large degree, the current standards and policies reflect the desires of the local board and community.

In recent years there has been a considerable amount of reshuffling of administrative positions. Up until a few years ago there existed a relatively stable situation with a 'Chief School Administrator' and an Assistant Principal. Currently, with the greater school population, there exist four positions: a Superintendent, an Assistant Superintendent, a Principal, and a Vice Principal. The current Superintendent grew up in the community and was himself a student in the school over which he now presides. He has been serving in his present capacity for the past three years. Prior to coming to this district, he was a teacher and principal in a neighboring community where he had lived all of his adult life.

The school has some fifty faculty members. This represents an increase of eight since the June, 1987 merger of schools (already discussed). In addition to classroom faculty, the school has three State mandated members of the basic Child Study Team. These are a full-time learning consultant, a full-time school psychologist, and a two-fifths-time social worker. In addition, the school has two speech-language pathologists. One is a full-time employee and the other is a two-day-per-week employee: the writer is the latter. The school also has several special education teachers: four resource room teachers, two teachers of the perceptually impaired, one communication

handicapped teacher, and one preschool handicapped teacher. Special remedial classes are also available for students who do not receive passing scores on C.T.B.S. tests. There is also a teacher of the gifted, who teaches students who are gifted in the academic and/or arts areas.

The writer's own educational background consists of the following. She attended a public school in an urban setting from kindergarten through grade seven. Her education continued in a suburban educational public high school setting through both high school and college careers. The author holds an undergraduate degree in both speech arts and speech rehabilitation, a masters degree in speech rehabilitation, and six New Jersey certificates in the following areas: speech correction, speech arts and drama, learning disabilities, teacher of the handicapped, supervisor, and principal.

The writer's experience as a speech-language pathologist and learning consultant in public schools, clinics, hospitals, parochial schools (Educational Services Commission), home health care (Division of Public Health Nursing), and private practice totals twenty-four years. She has served in the school where the practicum was implemented as a part-time employee for the past six years and has earned tenure in the positions of learning consultant and speech-language pathologist.

As an extension of her school responsibilities, the writer has voluntarily taken on the responsibility of innovating programs at her 'practicum school.' As an example, she participated in the field study ecological program initiated by Dr. James MacDonald and Yvonne Gilette of the Kissinger Institute of Ohio State University. This adult-child intervention project proved to be very successful and was well received by teachers, parents, and administrators. In addition, this writer has initiated the inclusion of language development in the preschool handicapped, communication handicapped and kindergarten classes. Parents and teachers applauded its effectiveness. In spite of this, the language development program was disbanded just one year later because the priority for the appropriation of funds was shifted from speech therapy services to psychological services. As a result, this writer's four-day-a-week position was reduced to a two-day-a-week position, making it impossible to serve the large number of speech cases without at the same time abandoning the language development program.

This writer, in addition to being awarded the Certificate of Clinical Competence by the American Speech-Language and Hearing Association, has been given special recognition for having completed seventy hours of advanced study in the area of speech pathology. She was

awarded the ACE. Award for Continuing Education, by the American Speech-Language and Hearing Association.

In addition to her affiliations with the national association. ASHA. this writer has been actively involved in speech and learning disabilities organizations on state. county and local levels. In addition to being actively involved on committees, particularly the public school affairs committees. this writer has served numerous times as a presenter at state conventions. She has also served as a professional-parent liaison in parent advocate groups, and has volunteered developmental screening services for preschools in a tricounty area. She has also volunteered her time during Better Speech and Hearing Month (every May), performing audiological and speech screenings at hospital sites for preschool through senior citizen age groups. In addition. she has appeared on numerous county radio broadcasts serving as a professional informant and responding to questions on professional phone-in talk shows.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

The situation which this writer initially faced actually consisted of two closely intertwined problems. The first was to convince the school administration of the need for carrying out generalization activities. Once this problem was overcome, there then remained a second problem: finding a workable and effective means of promoting generalization which would not disrupt the regular life of the school or place an undue burden on the facilitator parents etc.). To understand both of these problems, it will be necessary to develop a little of the background about the school administration and the speech services that have been available.

Prior to the inauguration of this experiment, the school did not place much emphasis upon the generalization phase of speech therapy. Students were retained in therapy by this writer until goals, as stipulated in the individualized educational plans, were achieved in the therapy setting. Parents are required by law to sign, signifying that they agree with the decision to dismiss their child from therapy. If for any reason they do not

agree with the decision, the therapist has the option of retaining the child or, if he/she feels that this is not in the best interest of the child to do so, he/she may challenge the parents through the due process procedure. In the past, the administration was of the opinion that dismissal constituted reason enough to terminate continued focus on maintenance (generalization/carry-over). By their former way of thinking, the speech therapist's involvement terminated at this juncture.

In the past, students were not monitored and/or assisted in the generalization area of therapy. As indicated, the current administrators seemed to view the speech therapists according to the former traditional role. The therapist were confined to his/her 'broom closet' to perform his/her 'magic treatment' on the 'inflicted' student. When he/she was at least partially 'cured', he/she was sent back into the mainstream. If monitoring were suggested by the therapist, it had been made perfectly clear by the administration that this had to be done without the direct involvement, or in some cases, the consulting, of the speech therapist. She/he was to remain in his 'proper' place. It had long been felt that his/her presence in the classroom would simply duplicate the responsibilities of the teachers and/or other professionals.

This writer was rewarded for her persevering efforts in persuading her traditionally-minded (as so many seem to be) administrators to, at least temporarily, modify their perception of the speech-language pathologist's role through her demonstrative examples which were documented by empirical evidence that her more modern and flexible procedures were valid. Consequently, the present administrators became considerably more receptive to innovative ideas and procedures, provided that they could be implemented without upsetting the faculty or daily school functioning. Evidence of this administration's openness was reflected when this writer was granted permission to participate in the Ohio State University Field Study Project for a two year period. This involved the therapist (this writer) and parents active and direct participation in language development classes at the preschool level in the current public school site. As indicated earlier, this project was heralded as most successful by administrators, teachers, and parents.

AS she anticipated, this writer feels confident that she will continue to be successful in her efforts to keep the administration convinced of the need to address the problem of generalization. To date, during a meeting initiated by this writer for the purpose of discussing the practicum proposal, the superintendent was informed of this

therapist's perception of the 'ideal' situation if this problem of generalization were solved. Students aided by trained teachers, parents, and peers would experience increased generalization in the classrooms, in extra-curricular activities, during socialization with peers in unstructured activities, and during activities for daily living in their home environments. Kazdin (1981), Stokes (1977), Koegel & Koegel(a) (1984), Stokes & Baer (1977), Lanconi (1982), Strain (1981), Leith (1984), Scalero & Eskewazi (1977).

The experiment was intended to show that, with the increased employment of the therapist in a consultant role, less therapeutic time would be needed for each student in formal therapeutic sessions. As therapeutic services would become increasingly augmented by other persons, the therapist would gain increased time to see students in the formal therapeutic setting. A more rapid dismissal rate could be expected (from the formal therapy). Hence an increased number of students would be served without increasing the case load or the number of speech-language pathologists. An improved quality of therapeutic services (from commencement to the termination of therapy) would be had at a lowered professional expense rate (cost effective).

In summary, there is a lack of significant generalization of speech skills learned in the therapeutic setting.

Therapy significantly loses its value if generalization does not occur. Bloom & Lahey (1978), Costello (1983), McReynolds & Jetzke (1986), Kazdin (1984). In order to augment the generalization process, administrative support is necessary. Administrators need to be made aware of the significant lack of generalization and what solution strategies (based on research) promise to remedy the situation.

Problem Documentation

Prior to the commencement of the experiment, the existing problem of a lack of generalization was validated by teacher and parent testimony. Teacher comments as they appeared on progress reports for the five classified students in the child study team folders indicated the following: The two stutters reportedly regressed since the spring and one of them was having particular difficulties with fluency in structured academic situations where oral recitation was emphasized. Three teachers testified to this in the case of one stutterer, and five testified to this in the case of the other stutterer. The apraxic student was reported to be less well understood than she had been in the spring according to two mainstream teachers and one resource room teacher.

Parents of one the stutters expressed concern about regression at least five times since the start of the 1987-88 school year. Parents of the other stutterer wrote one letter of concern. In the case of both stutterers regression was manifested at home and intensified during the summer months. Teachers of one stutterer, who sent at least five memos since the start of the school year, expressed their concern about regression since June '87. One memo sent by one of the stutter's teachers contained a message of concern about the decrease in fluency during the month of September '87.

Further documentation of the problem was the fact that numerous students previously dismissed from speech therapy were re-referred. Of the eight selected for this practicum, all six of those classified as 'eligible for speech corection' who had been dismissed (or at least considered for dismissal), were referred by their respective teachers in the year preceding the commencement of the experiment.

Causative Analysis

The writer believed that the current administration needed to be made aware of the importance of the generalization process and of its significance relating to therapeutic and cost effectiveness. The administration needed to be made aware of the relative ineffectiveness of

the traditional role of the speech-language pathologist, that is, the role where the therapist is isolated with the student in some secluded area of the school where he/she administers some 'secret' treatment and then sends the child back to class.

Involvement of the therapist either with significant others or in the mainstream environment was regarded as unnecessary and/or inappropriate. Only recent consultations between this writer and her superintendent (re: practicum) seemed fruitful. The superintendent was willing to permit experimentation, that is, to permit this writer to work more closely with significant others and in the mainstream environment as well at least for the three month implementation period of the practicum.

The administration needed to made aware of the mounting evidence in the literature which supports the concept of the active involvement of the therapist in a consultant role so that he/she may extend therapeutic strategies to the mainstream environment by training significant others. They, then, may be in a position to effectively augment and monitor the generalization process.

The Related Literature

The review of the literature revealed a number of methods which would be useful in encouraging carry-over of proficiencies developed in therapy. These methods involve the use of teacher and parents (and peers) in various ways. Some of these include cuing, desensitization, and positive reinforcement.

Speech specific sources are limited in number and do not always include what would seem to be some very promising strategies in connection with generalization. Therefore, this review of the literature will include some sources which deal with carry-over of psychological and educational behaviors where promising strategies have been employed. (After all, speech behavior and psycho-social behaviors are similar in many respects.) In the course of this review of the literature, the speech-specific sources (dealing with articulation, language, and stuttering) will be discussed first, then the others will be discussed subsequently.

A study by Perigoe & Ling (1986) was made to determine whether children could learn to generalize phonetic-level speech skills into spoken language. Equal gains in speech were observed in two groups -- one trained using context words and the using function words. According to Ling & Perigoe (1986) generalization occurs and is maintained most

successfully when a therapeutic environment most closely simulates natural environmental conditions.

McReynolds & Jetke (1986) discussed the extent to which generalization occurred after six to thirteen year old prelingually deaf children were trained to produce voiced and voiceless sounds. The results showed that six out of eight children generalized voiced and unnoticed target sounds on fifty percent or more of the target probe items. They (1986) also discussed the advantageous effect (increasing and maintaining generalization) of simulating the natural environment during the speech therapy process.

Beveredge-Wavering & Seibert-Shook Mavis (1986) discussed the importance of incorporating parent-involvement in articulation task learning in the mainstream. Abraham & Weiner (1985) support the idea of improving correct spontaneous production of trained target phonemes in untrained generalization contexts. Costello & Bosler (1977) acknowledged the importance of involving parents of misarticulating children in the administration of a treatment program, to correct phonemes, that was held held in a traditional treatment setting. Abrhham & Weiner (1985) also support the idea of improving correct spontaneous productions of trained target phonemes in untrained generalization context.

The spontaneous production of trained target phonemes was also stimulated by the effective use of cued speech according to Schilp (1986) and Gothelf (1987). Some of the techniques discussed include body motion including gestures, body movement, facial expressions, eye behavior, postures and touch.

In addition to cued speech, video tape recording is discussed as another effective means of improving articulation generalization (can be used by parents and/or teachers). Engel and Groth (1978) discuss the positive effect video taping on carry-over. It serves as a positive reinforcer of positive articulation.

The aforementioned findings in the literature related to speech articulation. This writer has discovered information dealing with language generalization as well. For example, Ripich and Panagos (1985) discussed the multi-benefits of video taping in helping children to internalize socio-linguistic rules in the generalization process. Pickering (1985) discusses non-verbal cuing techniques which are helpful the generalization of language skills in the classroom.

Warren & Kauser (1986) explored the extent to which generalization of fifty seven two to four word syntactic forms learned by pre-school language-delayed children were

generalized in free play. It was noted that there was a relationship between complexity and potential functions of treated forms. Forty two of the subjects generalized the learned forms of spontaneous language in free play.

Support for the simulation of the natural environment and the training of parents, teachers (and peers) in ways in which they could help children in the generalization of newly acquired language skills was found in the literature. (Welsh (1980) & Warren & Kauser (1986) and Gerber (1986). Koegel & Koegel(a (1984). Lanconi (1982). Kazdin (1981) Conant (1984) discussed a pragmatic approach for language intervention which incorporates communication games; conversational situations and role playing appeared to result in positive changes for children with moderate language delays. Spradlin & Siegel (1982) and Siegel (1983) indicate that it is clear from the accumulation of research that children should be treated in the setting where they are having difficulty.

The employment of parents and teachers as an effective means of promulgating effective speech generalization of newly acquired language skills has been discussed in the literature. Lyngaas, Nyberg, Hockenga, and Gruenewald (1983) discussed the importance of including parents for insuring appropriate and meaningful interventions in the generalizing newly acquired language skills. Costello

(1983) discusses the importance of training parents in the intervention setting to serve as primary treatment agents for their children. MacDonald and Gillette (1984) discuss the effectiveness of training and employing 'significant others' in the turn-taking process of language: this has been successful in stimulating language development.

Several of factors emphasized in the above context relevant to the generalization of newly acquired language skills are also discussed in the literature pertaining to the generalization of fluent speech. For example, Leith (1984) discussed the use of cuing for stutterers in the generalization of new behaviors. Leith also (1984) discussed the importance of having parent act as clinicians for their child (stutterer) in a home program. In this same reference (1984), Leith demonstrated how effective rewards from peers involved in thegeneralization stage of stuttering therapy can be. Owen (1981) emphasized the importance of a parent-teacher augmented transition of fluency behavior maintenance from clinical settings to the extra-clinic environment.

The aforementioned sources referred specifically to some aspect of generalization of speech: articulation, language, and/or stuttering. As indicated the review of the literature revealed related generalization strategies for educational or behavior maintenance (psychology) as well.

Welch (1980) explored the extent to which mentally retarded subjects generalized naming responses to objects in the natural environment. It was discovered that generalization was considerable in those subjects who had been trained using actual objects. There was a blatant absence of generalization in those subjects who were trained exclusively with photos as stimuli rather than real objects.

Michael Gerber (1986) conducted two generalization studies involving eleven learning disabled elementary students using standard written dictation and imitation modeling. It was revealed that spontaneous generalization from one spelling list to another occurred when the learning disabled were permitted sufficient and individualized-types of exposure to remedial correction procedures.

Schumaker, Alley, Warner, & Schumaker (1981) discussed the effective use of cuing strategy severely learning disabled adolescents in the generalization process. Lanyon & Lanyon (1978) discuss the parents' and teachers' use of cuing in the mainstream environment.

In addition to the discussion of cuing, the benefits of positive reinforcement in stimulating generalization of newly learned behaviors was discovered in the literature. For example, Craighead, Wilcoxon-Craighead, & Meyers (1978) discuss the benefits of utilizing tokens as positive

reinforcement in the pre-generalization and generalization phases of therapy. Lanyon & Lanyon (1978) discuss the effective use of tokens in behavior therapy for the generalization of numerous newly learned behaviors. They explain that most children are quite responsive to the idea of trading tokens in for other rewards such as money. Kazdin (1977) also discusses the effective use of the token economy: the more extensive and satisfactory the generalization, the more tokens are received. Emshoff, Redd, & Davidson (1977) indicated that generalization test scores were higher in those individual who were exposed to a variety of positive reinforcement strategies e.g. points (tokens) and praise. Green & Pollstok (1982) that peer-based social reinforcement is particularly beneficial.

Desensitization is described in the literature as an effective technique in stimulating generalization. Visualization, self-talk, and relaxation are frequently discussed as concomitant factors in the desensitization process. Desensitization is discussed by Craighead, Kazdin, and Mahoney (1981) as a useful tool in the generalization process: they indicate when there is an interjection of a non-anxiety producing stimuli in conjunction with an anxiety producing stimuli, the client is asked to relax as he develops anxiety-inhibiting 'cognitions' (visualization) to suppress and

ultimately overcome malproductive irrational response. Craighead, Kazdin, & Mahoney (1981) discuss desensitization as means of alleviating anxiety. Bandura Blanchard & Ritter (1967) (classic) describe the efficiency of desensitization for inducing behavioral, affective and attitudinal changes. Costello & Bosler (1978) Kazdin (1984) also discusses the use of systematic desensitization as a means of helping clients overcome anxiety.

Progressive relaxation when it is associated with images (visualization) of anxiety-provoking situations is a powerful desensitization technique (Baer & Craighead, 1979) Relaxation used in conjunction with self-monitoring (self-talk) helps improve people's response to suggestion (Knepfler & Laqualte, 1985). Craighead, Kazdin, & Mahoney (1981) discuss the effectiveness of self-talk in the desensitization process. Marshall (1985) discusses self-monitoring as a primary step in children's monitoring their behavior. Craighead, Wilcoxin-Craighead (1978) and Drabman, Hamner, & Rosenbaum (1979) indicate that self-instruction and monitoring enhances performance across diverse tasks.

In conclusion, a review of the literature showed the importance of generalization in the therapeutic process across disciplines. There was emphasis on the effectiveness of involving parents, teachers (and sometimes peers in the

therapeutic process. Specific strategies relevant to the generalization stage of the therapeutic process were educationally, psychologically as well as speech related. Particular success was noted in those specific situations where parents and teachers assisted the therapist in implementing the discussed effective strategies in the mainstream environment.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Statement of General Goals

It is very important that generalization strategies be employed as a concomitant part of the therapeutic process if therapy is to have long range effects. In order to more effectively facilitate the generalization process, it is important for the speech-language pathologist to serve, at least in part, in the capacity of a consultant to teachers and parents; it is important for the speech-language pathologist to demonstrate how the generalization process can be implemented holistically within the academic and home settings without altering the existing 'state of affairs'. It was projected that at the end of the implementation period allocated for this practicum, six out of eight students would have shown, in the opinions of their teachers and parents, improvement in the generalizing of speech skills.

The goal of this practicum was to increase the generalization of speech skills of eight students in both academic and home environments. In order to reach this goal parents and teachers needed to play an active role in the therapeutic process. They needed to be extensions of the

speech-language pathologist. Before they could play a useful role, however, they had to receive instruction about speech disorders and how to implement therapeutic strategies and monitor students' speech behaviors in the mainstream.

Behavioral Expectations

To reach the goal of increasing the generalization of speech skills of eight students in both academic and home environments, three behavioral objectives were chosen for this practicum:

1. Six out of eight teachers will demonstrate increased knowledge of speech therapy techniques by responding correctly to all items on the Test of Teacher/Parent Understanding of Speech Concepts (Post Test). (Appendices A and B)

2. Thirteen out of sixteen parents will demonstrate increased knowledge of speech therapy techniques by responding correctly to all items on the Test of Teacher/Parent Understanding of Speech Concepts (Post TesT) (Appendices A and B).

3. Six out of eight teachers and twelve out of sixteen parents will perceive improvement in their students/children as indicated by their positive responses to eight out of ten items on the Teacher/Parent Perceived Generalization Questionnaire (Appendices C and D).

Evaluation Instruments

Two separate evaluation instruments were used to assess Objectives One and Two (Appendices A and B). The evaluation instruments for parents and teachers dealing with students with articulation problems were identical. Likewise, the evaluation instruments for parents and teachers of stutterers were identical. The questions were of the open form type. It was anticipated that the answers would be based upon solution strategies which would have been demonstrated to parents and teachers during conferences and meetings through the employment of auditory and visual media and through the imitation of therapist-modeling techniques in the therapeutic environment as well as in the mainstream environment.

Two separate evaluation instruments were used to assess objective three (see Appendix C and D). The first instrument was for teachers and parents of students with articulation problems. A second one was used for teachers and parents of students who stutter. The questions on each addressed characteristics specific to either articulation or stuttering. The questions on both were of the multiple choice type using a sequential numerical rating scale.

The data from the six sets of (pre and post) questionnaires were tabulated to determine how closely the actual

results compared with the projected objectives. (Re: Table No. 1)

Existing variables were explored to determine the extent to which they may have influenced results on the questionnaires. For example, poor teacher/parent attendance at conferences might negatively affect performance on the Teacher/Parent Perceived Generalization Question- naire. Also, if parents lack motivation or, for professional or other reasons, have minimal time to implement learned therapeutic suggestions, there is a greater probability that teachers'/parents' results indicated on the Teacher/Parent Perceived Generalization Questionnaire will be significantly lower than projected. In addition, even if knowledgeable teachers and parents lack the 'teaching skills', the results on the Teacher/Parent Perceived Improvement Questionnaire may be negatively affected. This would also be the case if students were insufficiently motivated.

Mechanism for Recording Unexpected Events

In order to accommodate unexpected events, the author kept a weekly log (see Appendix H)The log specified strategies employed as well as positve/negative student, parent and teacher responses/ reactions. In addition any modifications of stategies were indicated. The logs were

reviewed leach week in an effort to ensure that the program was being implemented as smoothly as possible.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation of Possible Solutions

The achievement of the generalization stage of speech therapy is the most important stage of the speech therapy process (Bloom & Lahey, 1978) (Costello, 1983). A review of the literature disclosed a whole array of solutions. The writer hunted for more than one solution since more than one kind of speech generalization problem is being attacked. Articulation is one area of focus for generalization strategies and stuttering is the other being considered.

One possible solution is that of cuing by teacher(s) according to Scalero (1977) and/or parent(s) accordoing to Forehand (1977) in an environment which at least most closely resembles the mainstream environment (Ling & Perigoe, 1986, McReynolds & Jetke, 1986, Welsh (1980), Warren & Kauser (1986), Gerber (1986), Kazdin(1981) and/or in the actual mainstream environment. (Spradlin & Siegel (1982), Siegel (1983), MacDonald & Gillette (1984), Lanyon & Lanyon (1978), Beveredge-Wavering & Selbert-Shook (1986), Abraham & Weiner (1985)].

Cuing is the signaling to a student to employ a correct speech response; it is a type of prompt. Some cuing techniques may include gestures, body movement, facial expressions, eye behavior, postures, and touch.

The use of cuing by the therapist, parents and teachers has been discussed in the literature as an effective strategy for attaining generalization in articulation, language, and stuttering problems. The effective use of cued speech in the attainment of correct phoneme production was discussed by Schilp (1986) and Gothelf (1987). Pickering (1985) reported the effective use of non-verbal cuing in the generalization of language skills in the classroom. Leith (1984) discussed the positive effects of cuing in helping stutterers to generalize their newly learned behaviors.

Allen,Warner & Schumaker (1981) discussed the effective use of the cuing strategy for learning disabled students. Lanyon & Lanyon (1978) discuss the educational benefits from cuing.

A second solution is the therapist's, parent's, and teacher's use of desensitization techniques as a means of stimulating positive generalization of newly learned speech behaviors. The term desensitization in this context refers to the reduction of negative emotion and/or the reduction of sensitivity to environmental stimuli.

Desensitization as a useful tool in the generalization process is discussed by Kazdin & Mahoney (1981). Bandura, Blanchard & Ritter (1967) (classic) describe the efficiency of desensitization for inducing behavioral, affective and attitudinal changes. Bauer & Craighead (1979). Craogjead, Kazdin & Mahoney (1981) discuss the use of systematic desensitization as a means of helping clients overcome anxiety.

Visualization, self-talk, (Koegel,1984)and relaxation are frequently discussed in the literature as concomitant factors in desensitization process. Visualization is discussed a powerful desensitization technique by Baer,Roxbury, & Goetz (1979) and Van Riper (1973) (classic). Visualization enhances relaxation; relaxation is described as an extremely beneficial technique by Van Riper. Relaxation in conjunction with self-talk is discuss as being useful in the generalization process by Knepfler & plaquaite (1985), Craighead, Kazdin, & Mahoney (1981), Marshall (1985) and Craighead, Wilcoxin-Craighead (1978) and Drabman, Hamner, & Rosenbaum 1979).

A third solution strategy is positive reinforcement used by the therapist, teacher, parents, and /or peers. Positive reinforcement as discussed here refers to the rewarding of desired positive behaviors [in this case

correct or close approximations to the desired therapeutic responses (goals) in the mainstream environment).

Among the numerous kinds of positive reinforcers mentioned in the literature, two have been found to achieve especially positive results. One is the use of the video tape recorder as a reward (giving achieving students an opportunity to perform for their fellow students and/or serve in an instructional capacity for their peers) for positive achievement in the generalization process. (Engel & Groth, 1978) Video taped production stimulate peer positive reinforcement; peer-based social reinforcement is particularly beneficial according to Green & Pollstok (1982). The second reinforcer proclaimed to have stimulated positive generalization is the use of tokens. (Craighead Wilcoxon-Craighead, & Meyers (1978), Lanyon & Lanyon (1978), Kazdin (1977), Emshoff, Redd, & Davidson (1977).

Description of Selected Solution

The solution to the problem of a lack of generalization of acquired speech skills was based on the various methods and strategies of generalization which have been described earlier in this paper. Each of these methods and strategies has been adapted to meet the specific needs of the students specifically selected; these include some students who have articulation disorders and others who have stuttering disorders.

The selected solution strategies for achieving generalization of acquired articulation skills were the cooperative involvement of the therapist, parents, and teachers (and peers when appropriate) in both cuing and positive reinforcement techniques. Teachers and parents were invited to therapy sessions and group as well as individual meetings and conferences (in person and/or by phone) were held for several purposes. The first purpose was to familiarize parents and teachers with the specific articulation problems of the students with whom they would be working as well as the generalization goals. The second purpose was to instruct (by specific example and /or direct demonstration) parents and teachers of the specific cuing and positive reinforcement techniques which would be most appropriately suited to each child. The third purpose for meetings was to permit the writer to obtain feedback with

respect to students' progress and parent-teacher success rate in implementing their newly acquired strategies with their children in the mainstream.

Some cuing techniques recommended were visual types (so as to be less conspicuous) such as gestures, facial expressions, and specific hand motions. The speech students and therapist were to mutually decide on the most beneficial and comfortable techniques to be employed. This selection was determined after considerable experimentation and discussion in the therapeutic environment. The teachers and/or parents with whom the speech students had the best rapport were invited to participate in the therapy sessions. When appropriate, role playing (role changing) was employed to help demonstrate the techniques. During appropriate times (as specified by the teacher(s) and parent (s)) the therapist was present in the mainstream environment (s) (classroom or home).

Some positive reinforcement techniques, in addition to the commonly employed positive reinforcers for the speech students,
(e.g. verbal praise, stars, stickers, and speech certificates), was the use of a tape recorder (making tapes) as a means of rewarding the student who demonstrates improvement generalizing. More specifically a student who is progressing in the generalization stage of therapy may be given an

opportunity to be on television (video taping) in the capacity of entertainer (putting on shows e.g. puppet type) or teacher (demonstrating with others on the 'air' the correction phonemic production; this could be done in the form of a prerehearsed quiz show). The rationale for the employment of this technique is not only the result of the positive appraisal of it in the literature but from former positive experiences this writer has had in the past. Specifically, several years ago, parents of an extremely communication handicapped child (non-verbal home bound five year old youngster) requested that this writer make a video tape with some kind of speech stimulating activities. The parents indicated that the only thing that interested their child was television. This writer wrote and directed (using the schools own communication and perceptually handicapped youngsters as 'performers') a Romper Room type script which incorporated the indirect instruction of specific primary articulation sounds as well as general speech stimulation. This 'program' was shown in the communication and perceptually impairment classrooms as the request of the teachers. The result: an increased desire on the part of the severely communication handicapped child to phonate but equally, if not more important, was a profound improvement of generalization of newly acquired speech and syntax.

The selected solution strategies for stutterers were the cooperative involvement of parents and teachers (and peers if/when appropriate) in the instruction and implementation of positive reinforcement and desensitization. Meetings, conferences, and involvement of teachers and parents have already been discussed earlier in reference to strategies for the generalization of acquired skills by articulation students. They were held in like manner and for like purposes for the parents and teachers of the students who stutter.

As indicated, instruction in the use positive reinforcement techniques was selected for use in the stuttering group as well as the articulation group. In similar manner, the use of video taping with the articulation group produced positive results (increase generalization). It is general knowledge among speech-language pathologists that stutterers are 'unnaturally fluent' when assuming the role of a character or person. Therefore, a manifestation of fluent speech while performing as a character other than him/herself should not be regarded as an improvement in the generalization process. Assuming the student who stutters is interested in the video taping and the activity seems benign in the professional judgement of the therapist (she must ascertain whether such an activity might be

counterproductive e.g. if the child feels stressed, embarrassed etc.), this technique might be incorporated as a positive reinforcer for the following reasons. The child upon viewing himself as fluent may internalize that positive image. Also, his peers, while viewing him as a fluent speaker might gain respect for him and his speaking ability.

Also employed was a sometimes successful positive reinforcement strategy of using tokens as rewards for successes in the generalization of fluent speech. The specific token may be determined among the student, therapist, parent, and teacher. Anything from marbles, beads, pennies, popsicle sticks may be used. Several (a designated number at the onset) tokens are placed in a container labeled 'hard speech'. A second container, which is empty initially and is labeled 'easy speech'. Each time a student speaks fluently (whether a fluent phase, entire sentence, or thought is required depends on a child's stage of therapy and his sensitivity level) a token is transferred from the 'hard speech' container to the 'easy speech' container. As a means of creating an intermediary stage between the formal speech session and the mainstream environment, role playing may be employed. The therapist, teacher, and/or parents can create, through characterizations, an environment which closely simulates

the mainstream. If the child succeeds in this 'test' situation, the technique may be continued in the classroom and at home.

The second solution strategy which was selected to teach parents and teachers was that of desensitization. The concomitant and overlapping techniques for this strategy which were chosen included visualization, self-talk, and relaxation. As in the positive reinforcement strategy, initially these techniques were taught to the student in the formal speech sessions. Next, role playing was involved employing the therapist, parent(s), and teachers in an attempt, through alternate characterizations, to simulate several situations in the mainstream environment. Finally, the techniques are attempted and monitored in the mainstream environment. When necessary parents and teachers found it helpful to use some mutually agreed upon code word as a reminder for the student to employ a specific technique. Such codes were determined during the simulation stage of generalization while the student was in the sheltered speech environment with his teacher(s) and parent(s) present.

In summary, as the writer had correctly anticipated, the incorporation of the aforementioned strategies during the therapeutic process resulted in increased generalization of learned speech behaviors among students involved. As parents and teachers, through training sessions, became more

familiar with speech problems and the therapeutic strategies, they became extenders of the speech-language pathologist in the mainstream. Successful communication in the mainstream is, after all, the primary purpose of speech therapy.

CHAPTER V

RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Results

Objective One was achieved by measuring the performances of teachers on the Pre/Post Test of Teacher/Parent Understanding of Speech Concepts. The assessment devices may be found in Appendices A and B. The specific objective, "Six out of eight teachers will demonstrate increased knowledge of speech therapy techniques by responding correctly to all items on the Pre/Post Test of Teacher/ Parent Understanding of Speech Concepts," was met. Thirteen teachers were involved rather than the originally designated number of eight since the special education teachers had considerably greater contact with classified students than did the teachers in the self-contained classroom. Ten of the thirteen teachers who completed the exercise demonstrated increased knowledge of speech therapy techniques. Two of the remaining three requested exemption. The third teacher received a perfect score on the pre-test. The mean of the pre-test scores for teachers was 6.384. The mean of the post-test scores for teachers was 8.384. This indicates an improvement in the mean score of 2.000.

Objective Two was achieved by measuring the performances of parents on the Pre/Post Test of Teacher/Parent Understanding of Speech Concepts. The assessment devices may be found in Appendices A and B. The specitic objective, "Thirteen out of sixteen parents will demonstrate increased knowledge of speech therapy techniques by responding correctly to all items on the Pre/Post Test of Teacher/Parent Understanding of Speech Concepts," was met. Eleven parents were involved rather than the anticipated number of sixteen because three of the students were from single-parent homes. All eleven parents who completed the exercise demonstrated increased knowledge of speech therapy techniques. The mean pre-test score for parents was 5.000 out of a possible ten. The mean post-test score was 7.545. This is indicative of a mean improvement score of 2.5 or .5 greater than the mean improvement score for teachers. One explanation for this may be the fact that parents, as a group, attended more conferences and workshops, and that they more frequently attended actual demonstrative therapy sessions.

The third objective, "Six out of eight teachers and twelve out of sixteen parents will perceive improvement in their children/students as indicated by their positive responses to eight out of ten items on the Teacher/Parent Perceived Generalization Questionnaire" was measured through

the use of a multiple choice instrument to assess perceived improvement. This assessment instrument was administered at both the beginning and end of the implementation period. The questions are presented in Appendices C and D.

The results are depicted in Table 1 below.

Table 1. Results of the Teacher/Parent Perceived Generalization Questionnaire

STUTTERERS

1. The student manifests fluency while socializing with peers.

	1	2	3	4
Child No. 1			----->	
			+++++++++++++++>	
Child No. 2		---------->		
			+++++++++++++++>	

1 = Never..... 5 = All of the time.

----> = Teacher(s)
++++> = Parent(s)

2. The student demonstrates fluency while conversing with parents/teachers.

	1	2	3	4
Child No. 1			---->	
			+++++++++++++++>	
Child No. 2			- (No change)	
			- (No change)	

3. The student demonstrates fluency in structured situations at home/in the classroom.

	1	2	3	4
Child No. 1			---->	
			+++++++++++++++>	
Child No. 2			- (No change)	
			+++++++++++++++>	

(Continued)

ARTICULATION CASES

1. The student demonstrates acquired articulation skills while socializing with his/her peers.

	1	2	3	4	5
Child No. 1		---------->	+ (No change)		
Child No. 2			- (No change) ++++++++++++++>		
Child No. 3			- (No change) ++++++++++++++>		
Child No. 4		----------> ++++++++++++++>			
Child No. 5		---------->	++++++++++++++>		
Child No. 6			- (No change) +++++++>		

2. The student demonstrates acquired articulation skills while conversing with parents/teachers

	1	2	3	4	5
Child No. 1			----------> ++++++++++++++>		
Child No. 2			----------> + (no change)		
Child No. 3			- (No change) +++++++++++++>		
Child No. 4		-------> +++++++>			
Child No. 5			- (No change) + (No change)		
Child No. 6			- (No change) +++++++>		

(Continued)

3. The student demonstrates acquired articulation skills during structured situations at home/in the classroom.

	1	2	3	4	5
Child No. 1			<----------		
			+ (no change)		
Child No. 2					- (No change)
					- (No change)
Child No. 3			---------->		
			+ (No change)		
Child No. 4		------->			
		+++++++>			
Child No. 5			- (No change)		
			- (No change)		
Child No. 6		---------->			
			<+++++++		

As indicated in Table 1, most parents and teachers perceived an increase of one level of improvement in the generalization process in all three areas: socializing with peers, conversing with parents/teachers, and during structured situations at home. At the very least, students were perceived as remaining at the same level; hence, there was no perception of backsliding -- a factor, according to the writer, which is quite significant. This may indicate that parent/teacher involvement in the therapeutic process contributes not only to successful generalization of acquired speech skills, but also to progressive speech improvement. This success, in the writer's opinion, is attributed to conscientious efforts on the part of the parents and teachers with respect to both their acquisition of information relevant to solution strategies as well as to their participation in the therapeutic generalization process.

Participation of parent-teacher implementation was recorded on Verification sheets (see Appendix E). Separate mean scores for the amount of implementation were derived from the data collected on these sheets from parents of stutterers, teachers of stutterers, parents of children with articulation problems and teachers of children with articulation problems. The scores are contained in the following table:

Table 2. Mean Scores Signifying Amount of Implementation (Derived from Verification Implementation Forms)

Parents of Stutterers	Teachers of Stutterers
6.500	4.000
Parents of Children with Articulation Problems	**Teachers of Children with Articulation Problems**
4.000	2.833

It was interesting to note that a greater amount of implementation occurred by both teachers and parents of stutterers than by teachers and parents of children with articulation problems. Perhaps it might be speculated that a speech disorder which is more obvious -- obvious defined as the extent to which it creates discomfort on the part of the listener or more seriously impedes the communication process, is one which is internalized by the 'spectator' as being more severe. Stuttering, for example, may instill a feeling of discomfort on the part of the listener and certainly may play a role in interfering with the speaker's ability to communicate effectively. Parents and teachers, therefore, may believe that the modification of stuttering problems deserves more therapeutic attention than does the modification of articulation problems. Individually, many more teachers of stutterers volunteered to participate in the implementation process than did teachers of students

with articulation problems. Each of them took a keen professional and personal interest in their 'children'.

Certain types of articulation disorders are only mildly manifested, especially to the untrained ear. Even more serious types of articulation disorders, such as apraxia, are more subtle in their manifestation, especially as the patient/student approximates the termination of formalized therapy.

Most of the articulation students involved were randomly selected from those individuals in the writer's case load who had been involved in speech for at least one year and who were making satisfactory progress in the structured speech therapy sessions but who demonstrated no or only minimal carry-over in their mainstreamed environments according to their parents and teachers.

The relatively high level responses on the Teacher/ Parent Perceived Generalization Questionnaire demonstrated to the writer that the teacher, and in some instances parents, did not wholly understand the nature of their student/'child's difficulty. When, through discussion and demonstration, the speech language pathologist clarified the nature of the problems, both parents and teachers were in a better position to appreciate the extent of inadequate

carry-over. Those teachers, (only a very small number) who seemed to respond somewhat defensively to the "pre-questionnaire", were the same ones who ranked their students progress as being unusually satisfactory and/or were of the impression that their students did not have a problem. Such individuals who not only made minimal attempts, if any, to attend conferences or view demonstration and video tape to learn about the students' problems, but did not play a role in the implementation process. This negatism, though very minimal, was not anticipated by the writer. The other difficulties had to do with logistics and released time for conferences. Due to an increase in student population, there is minimal teaching space for adjunct faculty (related service personnel). (This problem will be alleviated with the next several years when a new fourth grade school will be completed). The areas which are available lack sufficient space, privacy, and/or sound proofing. The unprojected positive responses far outnumbered the negative ones.

Positive responses/reactions were received from parents, teachers, and administrators. Parents, even those who initially questioned the value of their involvement, seemed intrigued while observing demonstrations of the solution strategies either directly or on video tapes. Many of those viewing video tapes of their childre;s speech

performances, admitted to this as being the very first time they were able to 'stand back' and observe their child objectively. One parent, for example, to whom the speech-language pathologist explained the progressive deterioration of articulation with ensuring fatigue in apraxia, commented, "Oh, I knew she did it (slurring accompanied by grimacing) , but I thought it was just part of her personality!" From that moment on, this parent played a role in the therapeutic process which was three times greater than in former years.

. The vast majority of teachers took pride in their 'post-test 'results which reflected their ability to comprehend even the more complex kinds of speech problems and therapeutic techniques. They seemed to appreciate the opportunity of playing a direct role in the therapeutic process. Many of them intimated that they truly appreciated being informed as to the <u>specific</u> things they could do to help their students. Several expressed a previous frustration which they felt when as a result of not being able to either comprehend the technical language or not knowing specific techniques to employ to help their students.

Equally positive responses were received from the administrators. They seem impressed with the resulting positive public relations feedback from satisfied parents

who took pride in numerous in-school appearances for a positive cause. Parents unhesitatingly voiced their pleasure with their children's more rapid progression through therapy. Witnessing positive effects of the implementation gave impetus to the exceptional administrative attempts at scheduling flexibility which were done whenever possible to accommodate the writer's conference and therapeutic needs. One administrator voluntarily reproduced videos for parental/professional use: this saved the writer considerable time and effort. Overall, since the program is cost effective, demonstrates effective therapeutic results, and promotes positive public relations, the administration seems sufficiently impressed to agree upon its continuation.

In conclusion, the program to increase speech performance levels through the incorporation of parents and teachers was deemed to be a success.

Conclusions

The first two objectives concerned the parent-teacher acquisition of increased knowledge of speech therapy techniques. Both objectives were achieved. Parents/ teachers and students with articulation problems demonstrated their understanding of the cuing strategy as well as positive reinforcement. Parents, teachers, in one instance a student (voluntarily serving as a surrogate parent cuing helper) enthusiastically volunteered to negotiate with the student for an appopriate 'secret' visual cuing technique. Parent/ teachers of stutterers demonstrated their understanding and ability to apply progressive desensitization techniques; they also demonstrated increased understanding of the modification of their traditional responses to their stuttering children which they claimed to have been attributed to speech-therapeutic counselling sessions made possible thanks to the administrative support for this program's implementation. Positive reinforcement strategies, video taping and the use of tokens proved to be more effective than anticipated. The video taping was not only rewarding to the performer but produced side effects: serving as a therapeutic tool for others and sparking motivation in others involved in therapy. The use of tokens by the

speech-language pathologist as well as by parents and teachers proved to be overwhelmingly successful especially when the students discovered that the tokens could 'buy' them something -- in this case, every ten tokens 'bought' them one popsicle stick used in making structures. Teachers and parents were extremely conscientious about tabulating the specific number of tokens (or points, instead, if more appropriate). What the writer considers significant is the shared feeling of appreciation of interdependence among parents, teachers speech-language pathologist.

The third objective involved an increase in parent-teacher perceived speech improvement in the generalization of acquired speech skills. As indicated earlier, either improvement or a stabilization effect was denoted. Either response can be considered significant. Since the students involved had progressed to a high achievement level in the therapeutic setting, moving from the category "some of the time" to "most of the time" within a three month period is significant. It is important to note that those individual students who 'stabilized' at "some of the time" were ones who formerly were known to have done 'backsliding' in the past. Hence, objective three was deemed to be successful.

Recommendations

The writer has three specific recommendations based upon the results of this practicum. Two additional recommendations are intended for those who would be desirous of carrying out either a similar or extended experiment.

The first of the three involves the employment of the speech- language pathologist in a dual role capacity: as a practitioner and as a consultant for most therapeutically and cost effective results. The second is the active involvement of parents and teachers in the direct therapeutic process (observation followed by performance) on a relatively frequent basis. Third, frequent on-going conferences/ counselling (either parent, teacher, or speech pathologist initiated) are a valid activity sometimes in lieu of therapy since the resulting benefits far outweigh those gotten from traditionally 'segregated' therapeutic sessions.

The first suggestion for individuals interested in performing a similar 'experiment', would be to modify it by making two changes. First, an experimental and control group should be randomly selected from the entire caseload population rather than from a specific group (i.e. those closer to being considered for dismissal).

The second recommendation is that follow-up study of the students involved in this and/or similar programs be involved in follow-up studies. Half of the students should continue to have the benefit of parent-teacher involvement whereas the other half should receive therapy in the unaugmented traditional style. Perceive improvement questions should then be distributed to parents and teachers of the involved students. Hopefully, the results will reflect whether any backsliding occurs in those individuals who did receive parent/teacher support.

Dissemination

The results of this practicum project were shared in five ways. The first was by the submission of the practicum and its results to the writer's superintendent, who in turn made it available to other administrators, Board of Education members, and interested staff members.

Secondly, the writer has been an active member of county, state, and local speech language and hearing associations. As an invited public speaker in previous years, the writer has presented her innovative therapeutic methods. During the spring 1988 New Jersey Speech- Language and Hearing Association Convention, she presented portions of her practicum. Also, the Sussex County Speech-Language Hearing Association presented parent workshops. This writer

was invited to share her practicum findings with the parents and present demonstrations, based on the practicum, as to how parents can effectively assist the speech-language pathologist by playing an active role in augmenting the speech therapeutic process. Also, as a licensed private practitioner, the writer has presented portions of her practicum to parent groups associated with nursery schools, private/parochial schools, and hospitals. Video tapes have been made available to parents and teachers as well.

A third way in which the practicum was shared was through Nova networking. The writer has successfully acquired new professional contacts with whom to exchange valuable information. Also, of course, abstracts were made available to members of the writer's own Nova cluster.

The writer submitted the abstract and/or the methods and results of her practicum for publication in county and state newsletters as well as in the professional journal, Language Speech & Hearing Services in Schools published by the American Speech-Language-Hearing Association. In addition, acknowledgement of the practicum was provided in the educational section of local newspapers.

Finally, the writer presented portions of her practicum on local radio and television. For several years, the writer has presented professional information on local radio

talk shows; she responded to call-in questions as well. In addition, the writer has provided practicum-related information during Better Speech and Hearing Month and in conjunction with public service announcements.

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APPENDIX A

PRE/POST TEST OF TEACHER/PARENT UNDERSTANDING OF SPEECH CONCEPTS (ARTICULATION VERSION)

Describe or define the following. Consider the information you received at conferences, workshops, and individual meetings. Please write your answers on the accompanying lined paper provided.

1. cuing strategy
2. visual cues
3. feedback
4. positive reinforcement
5. two examples of positive reinforcement
6. generalization
7. significance of eye contact
8. significant others
9. articulation (speech)
10. motivation/success relationship

Range of Acceptable Responses

1. some kind of reminder to use correct phonemic responses

2. visual technique to encourage the correct phonemic responses (may provide feedback to assist the student in monitoring his responses)

3. means of 'reflecting' a student's response / an indication as to whether the response was correct or incorrect / auditory feedback / immediate imitation of a child's response

4. reward-giving positive responsive recognition for correct responses / giving the student a feeling of success

5. praise (verbal), reward (verbal, privilege, token) recognition (announcement, certificate of accomplishment, assistant to the therapist

6. employing newly-acquired speech skills in the mainstream-outside of the speech environment

7. necessary for visual cuing--important for getting and maintaining students' attention / important for visual feedback

8. any important individual with whom a child spends a good deal of time i.e. parents, teachers, peers, step parents, adoptive parents, siblings, baby sitters, coaches.

9. production of phonemes, sounds / way one produces sounds

10. to stimulate a child to want to perform well, to succeed, to want to put forth an effort / success often depends upon student's motivational level / high motivation may be internalized (self-motivation) / positive reinforcement encourages students to perform with increased effort (often yielding positive results)

APPENDIX B

PRE/POST TEST OF TEACHER/PARENT UNDERSTANDING OF SPEECH CONCEPTS (STUTTERING VERSION)

Describe or define the following. Consider the information you received at meetings, conferences, workshops

1. fluency
2. false fluency
3. progressive desensitization
4. positive reinforcement
5. two examples of positive reinforcement
6. tokens
7. two secondary stuttering characteristics
8. negative practice
9. breathing
10. 'easy' speech / 'hard' speech

Range of Acceptable Responses

1. smooth rhythm / speech which is free from excessive hesitations, repetitions and/or 'squeezing' on words when speaking/free from blocking and struggling / free from secondary stuttering characteristics

2. speech which sounds relatively fluent to the average layman but which to the trained ear is recognizable as 'silent' stuttering/long breaks or inappropriate pauses on sentence utterances / employment of 'starters' or breathing 'crutches'

3. gradually conditioning the child to become progressively less sensitive to others' negative reactions to his speech / increasing tolerance level to stress in the environment / becoming more confident in speaking in front of others (especially strangers) and when on the telephone

4. reward / giving positive response

5. praise (verbal), reward (verbal, privilege), and recognition (announcement, certificate of achievement, assistant therapist.

6. type of reward/type of positive reinforcement proved to be very successful / may be traded in for a practical reward / provides instant feedback / highly motivational

7. facial grimacing, taut lips and facial muscles, squinting, facial contortions, neck twisting, stiffening of the jaw

8. intentionally uttering incorrect / enabling the child to gain conscious control over negative (and consequently positive) performance

9. should be abdominal type for most positive results / should be controlled and smooth (not spastic and not clavicular)

10. easy speech = smooth flowing with minimal effort, smooth breathing, / if blocking exists the blocks are 'bounced' (produced easily without strain and struggle).

    hard speech = characterized by struggling on verbal production, irregular breathing, secondary stuttering characteristics

APPENDIX C

TEACHER/PARENT PERCEIVED GENERALIZATION QUESTIONNAIRE (ARTICULATION VERSION)

Please insert the number which best describes the student's level of achievement.

All of the time = 5. Most of the time = 4. Some of the time = 3. Hardly ever = 2. Never = 1.

1. The student demonstrates acquired articulation skills while socializing with his/her peers. _____

2. The student demonstrates acquired articulation skills while conversing with parents/teachers. _____

3. The student demonstrates acquired articulation skills during structured situations at home/in the classroom. _____

APPENDIX D

TEACHER/PARENT PERCEIVED GENERALIZATION QUESTIONNAIRE (STUTTERING VERSION)

Please insert the number which best describes the student's level of achievement.

All of the time = 5. Most of the time = 4. Some of the time = 3. Hardly ever = 2. Never = 1.

1. The student manifests increased fluency while socilaizing with his/her peers. _____

2. The student demonstrates increased fluency while conversing with parents/teacher. _____

3. The student demonstrates increased fluency during structured situations at home/in the classroom. _____

APPENDIX E

VERIFICATION OF IMPLEMENTAION SHEEET FOR PARENTS/TEACHERS

Dear Mrs. Ellicott,

This is to verify that I/We have been able to play an active role in helping our/my child/student _____ to use his/her newly learned speech modification strategies during conversational speech:

Indicate Stategy(ies) Employed: Use of tokens___Cuing__
Positive Reinforcement____

Please check where appropriate.

	Month 1	Month 2	Month 3	Month 4
Week	1			
Week	2			
Week	3			
Week	4			

Person verifying is the child's (please check one):
Teacher _____
Parent _____

APPENDIX F

NOVA PRACTICUM IMPLEMENTATION CHECKLIST

NAME OF CHILD:_____

Items:

_____ Pre-Teacher assessment of speech status
_____ Post-Teacher perception of improvement
_____ Pre-Parent assessment of speech status
_____ Post-Parent perception of improvement
_____ Pre-Test for Teachers
_____ Post-Test for Teachers
_____ Pre-Test Parents
_____ Post-Test Parents
_____ Initial implementation date
_____ Parent conference 1 2 3 4 5
_____ Teacher 1 2 3 conference
_____ Teacher workshop/demonstration
_____ Parent workshop/demonstration
_____ Parent documentation of therapeutic involvement in the mainstream
_____ Teacher documentation of therapeutic involvemtnt in the mainstream
_____ Pre-Video (optional)
_____ Post-Video (optional)

_____ Video performance for positve reinforcement
_____ Teacher/parent verification of implementation
_____ Strategies employed: positve reinforcement (tokens, video, verbal or written praise)___, cuing____, desensitization___

APPENDIX G

CONFERENCE REQUEST LETTER

Dear _____,

Kindly let me know whether you would be available for a conference in person or on the telephone on _____ within the next several weeks to discuss your child's/student's speech progress as well as specific ways in which you may help him/her to incorporate some of his newly-learned speech strategies into conversational speech.

Please check one of the following and send this notice back to me in the attached envelope:

I will be able to come to school on the indicated date ___

I regret that I cannot come to school but I can be available for a phone conference at the specified time _____

I would be available to speak with you on the phone on ____ at _____.

I would only be available to speak with you after school or in the evening ._____

Thank you very much.

Barbara Ellicott, M.A.CCC/SLP
Speech Language Pathologist

APPENDIX H

WEEKLY LOG

STUDENT-_____
Week_____

Strategy Employed: positive reinforcement___

desentization_____

cuing____

Student responses/reactions:

Positive

Negative

Parent responses/reactions:

Positve

Negative

Teacher responses/reactions:

Positive

Negative

Modifications of strategies: